

FIG.1

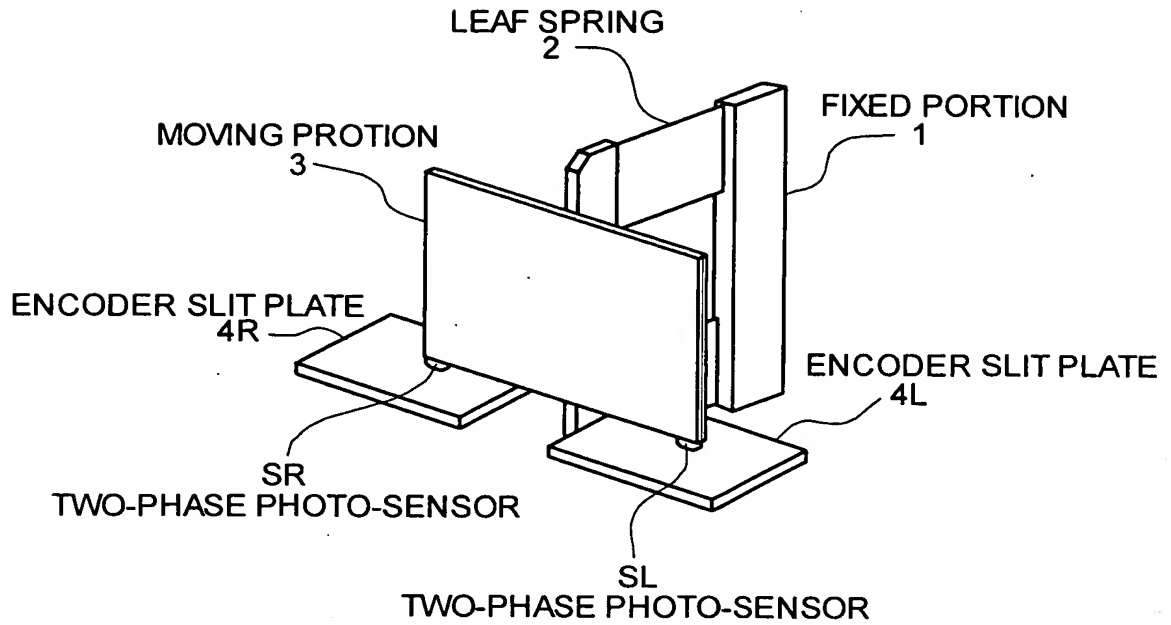


FIG.2

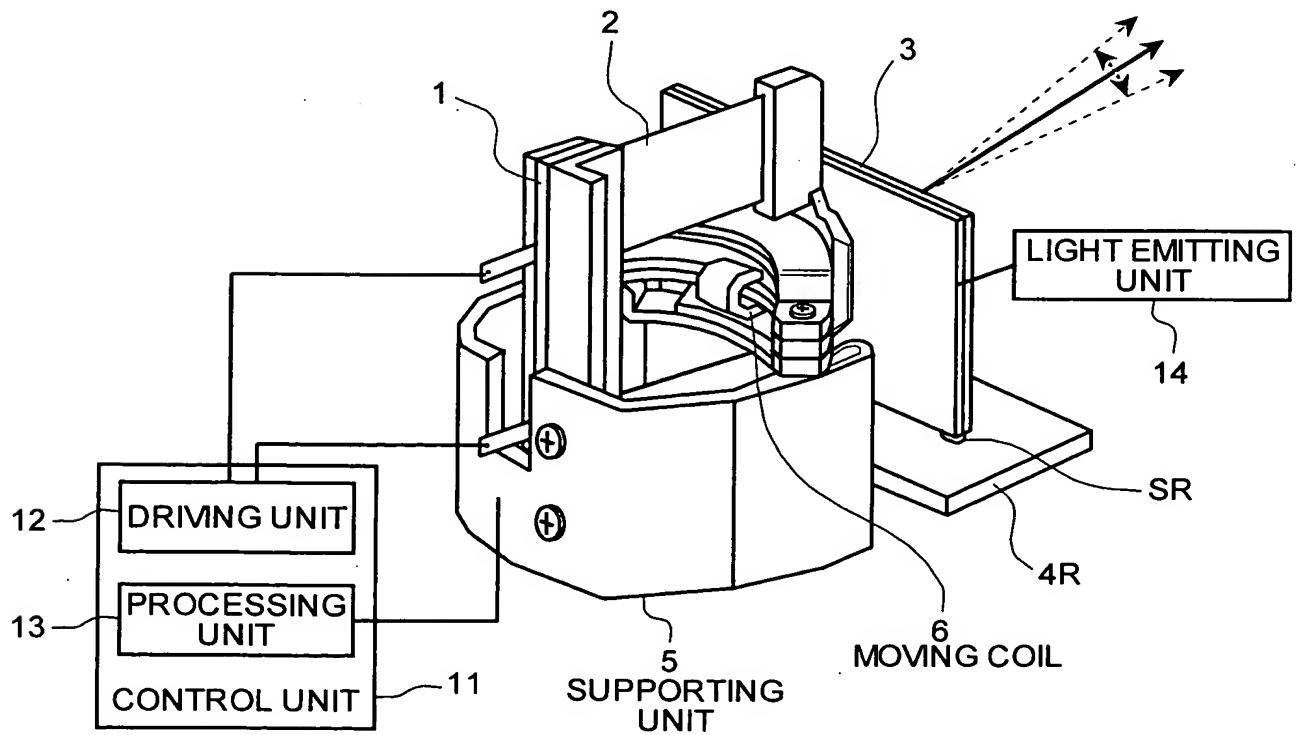


FIG.3

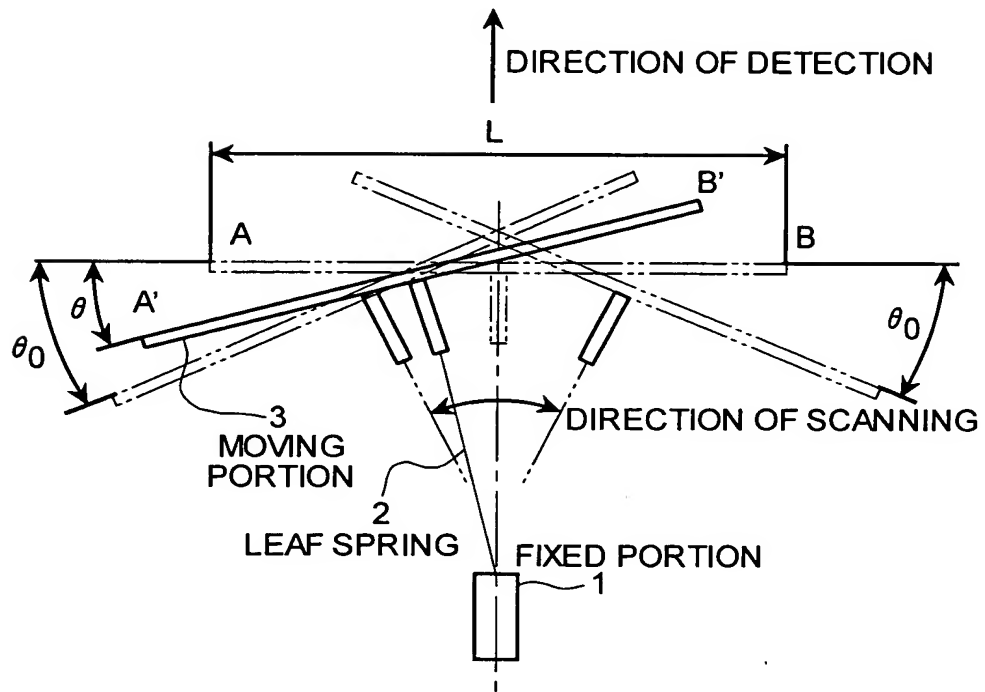


FIG. 4

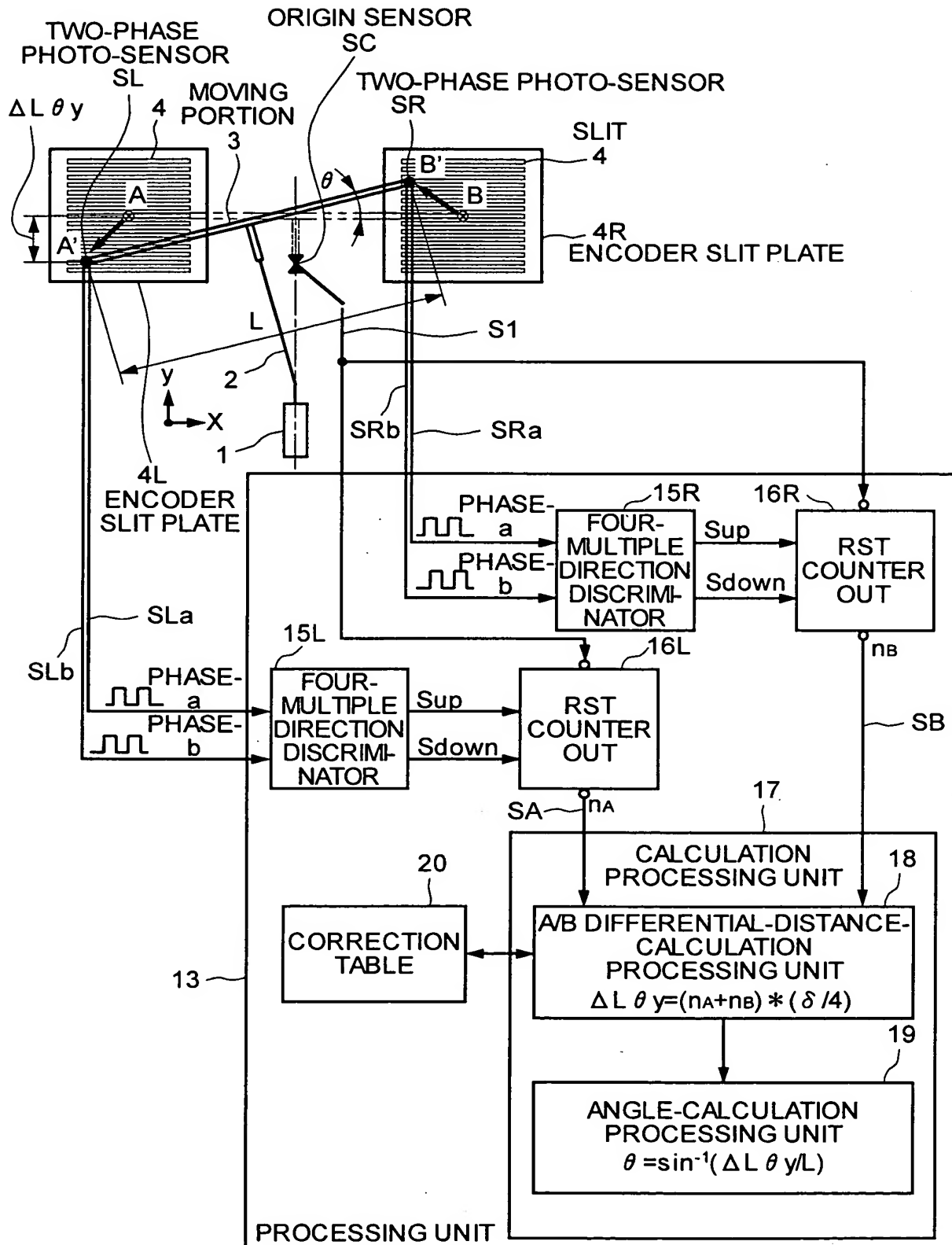


FIG.5

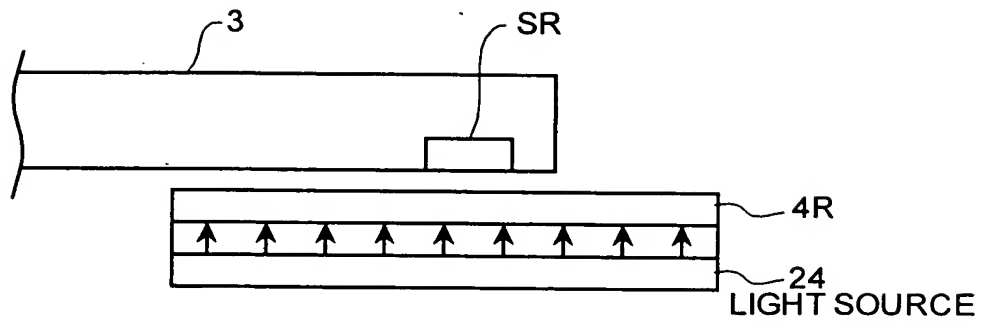


FIG.7A

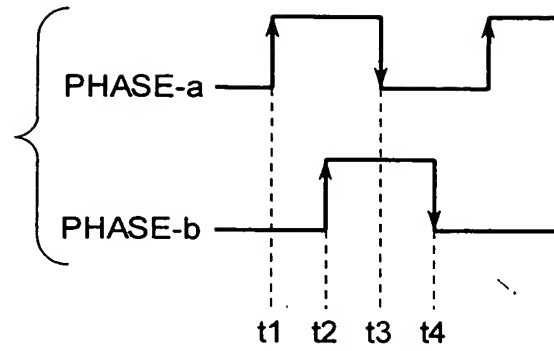


FIG.7B

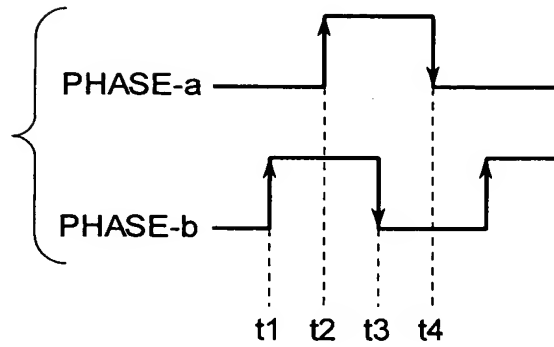


FIG.8

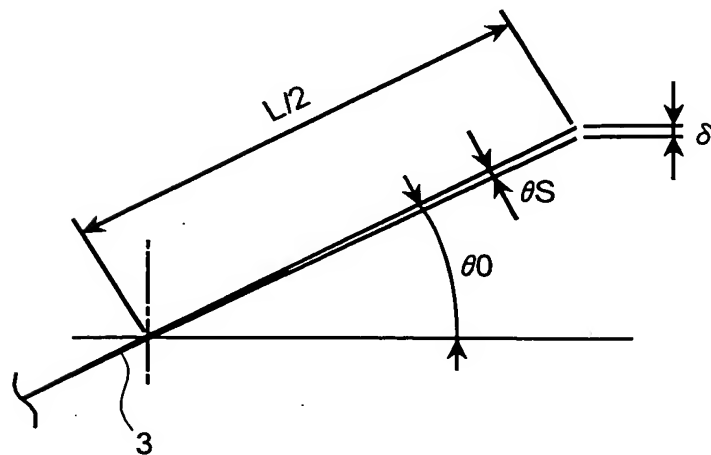


FIG.9

CURRENT I (mA)	ACTUAL ANGLE				DIS- PLACEMENT n (nA+nB)	DETECTED- DISTANCE DATA $\Delta L \theta y$ (mm)	CALCULATED ANGLE θ (deg)
	($^{\circ}$	'	")			
0	0	0	0	0	0	0	0
7	1	2	31	1.042	15	1.875	1.04179885
14	2	5	2	2.084	31	3.875	2.083942335
21	3	7	36	3.127	46	5.75	3.126776114
28	3	54	34	3.909	61	7.625	3.909563525
35	4	57	16	4.954	77	9.625	4.954443866
42	6	0	3	6.001	92	11.5	6.000978892
49	7	2	59	7.050	107	13.375	7.049527515
56	8	6	1	8.100	122	15.25	8.100454824
63	8	53	25	8.890	138	17.25	8.890435067
70	9	56	47	9.946	153	19.125	9.946426473
77	11	0	21	11.006	168	21	11.00584245
84	12	4	9	12.069	183	22.875	12.06908252
91	12	52	10	12.869	198	24.75	12.86926952
98	13	56	25	13.940	213	26.625	13.94020184
105	15	0	58	15.016	228	28.5	15.01612675
112	16	5	51	16.098	243	30.375	16.09749977
119	16	54	44	16.912	257	32.125	16.9123898
126	18	0	16	18.004	272	34	18.004453
133	19	6	12	19.103	286	35.75	19.10332448
140	19	55	56	19.932	301	37.625	19.93227047
147	21	2	39	21.044	315	39.375	21.04437614
154	21	53	2	21.884	330	41.25	21.88391389
161	23	0	40	23.011	344	43	23.01107752
168	23	51	45	23.863	358	44.75	23.86264612
175	25	0	25	25.007	372	46.5	25.00689175

FIG.10

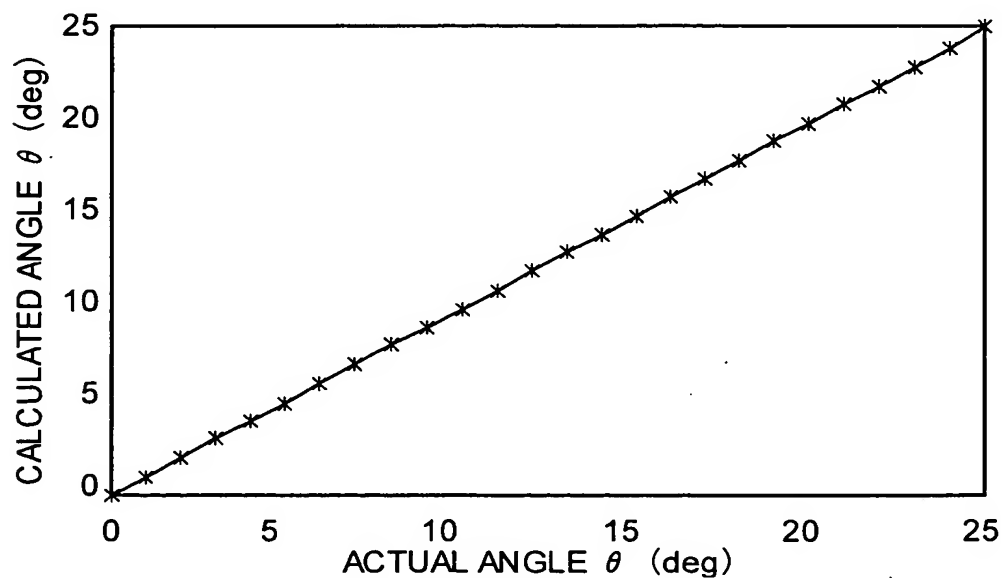


FIG.12

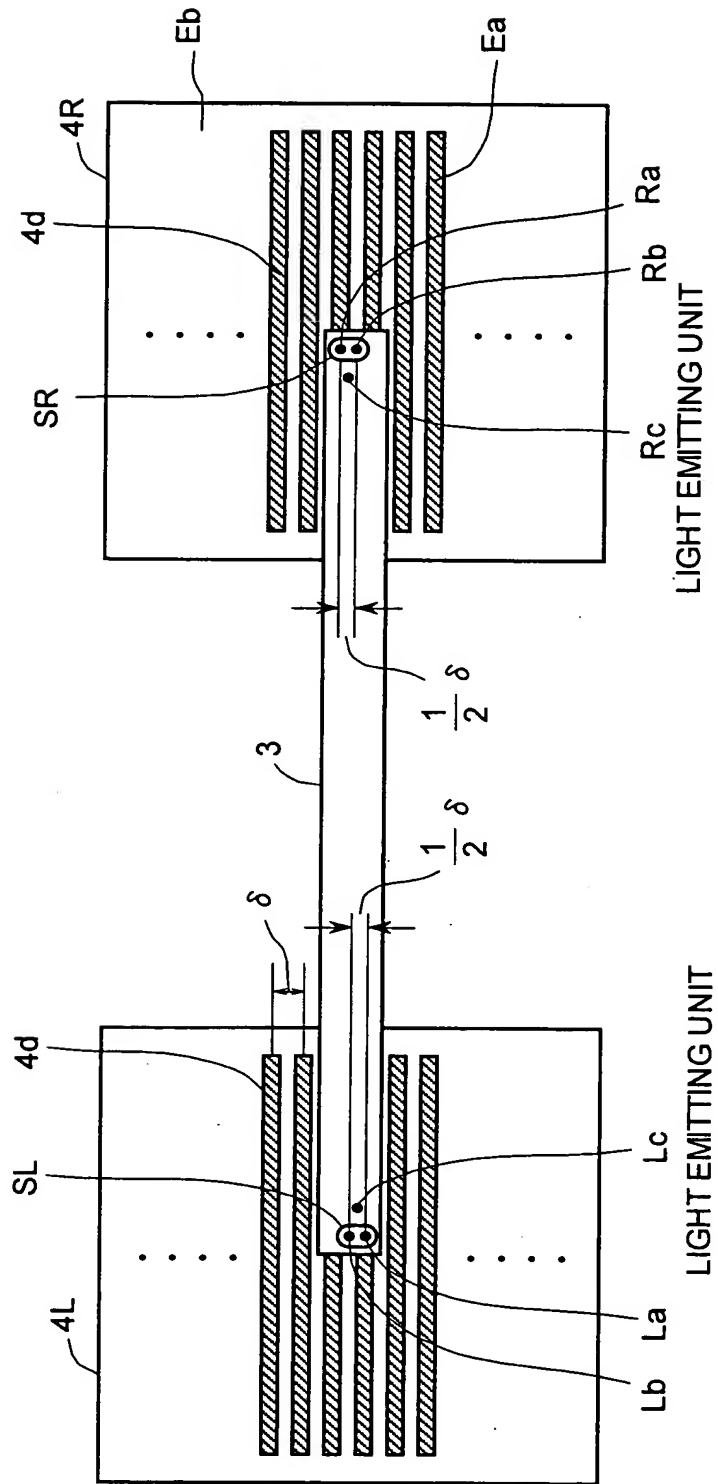


FIG.13

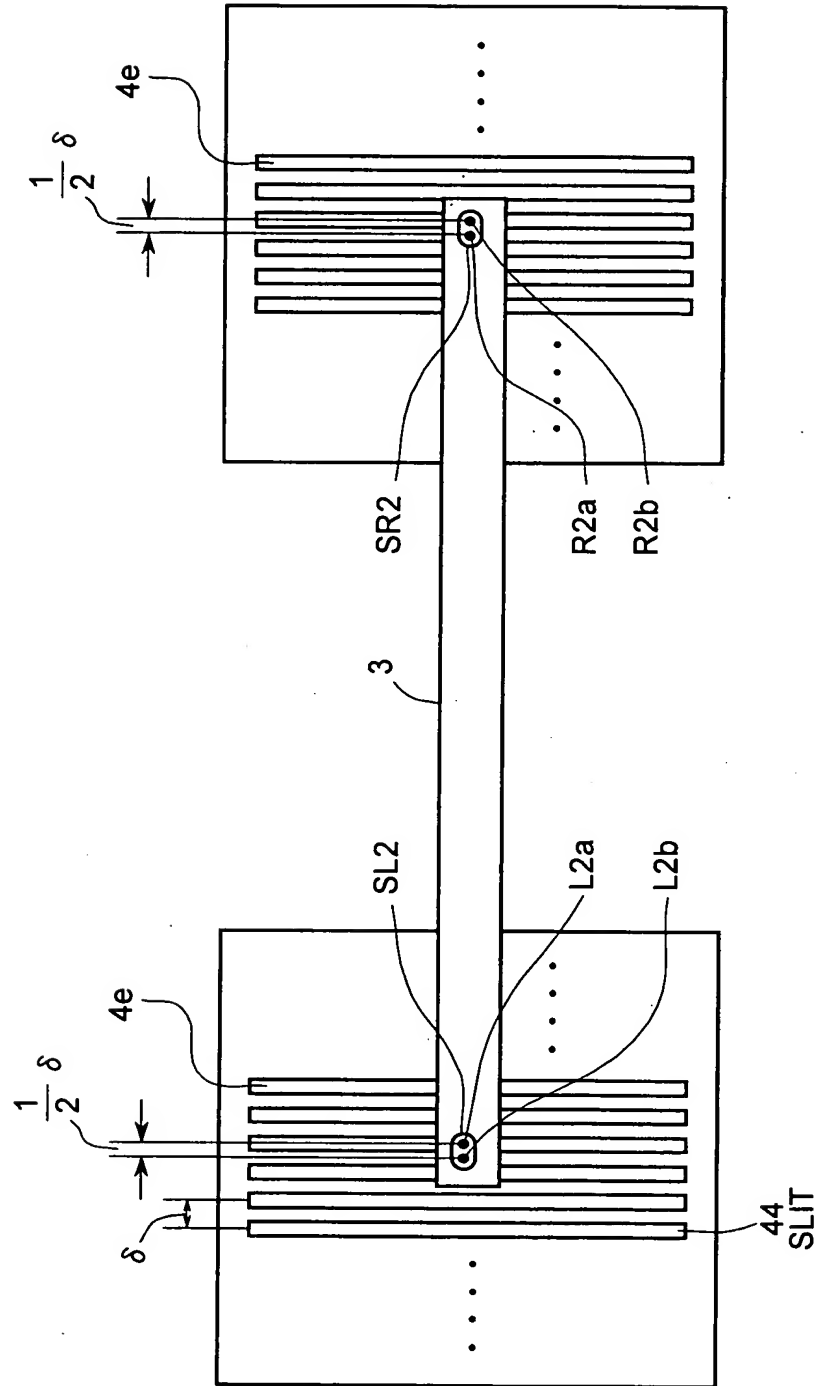


FIG. 14

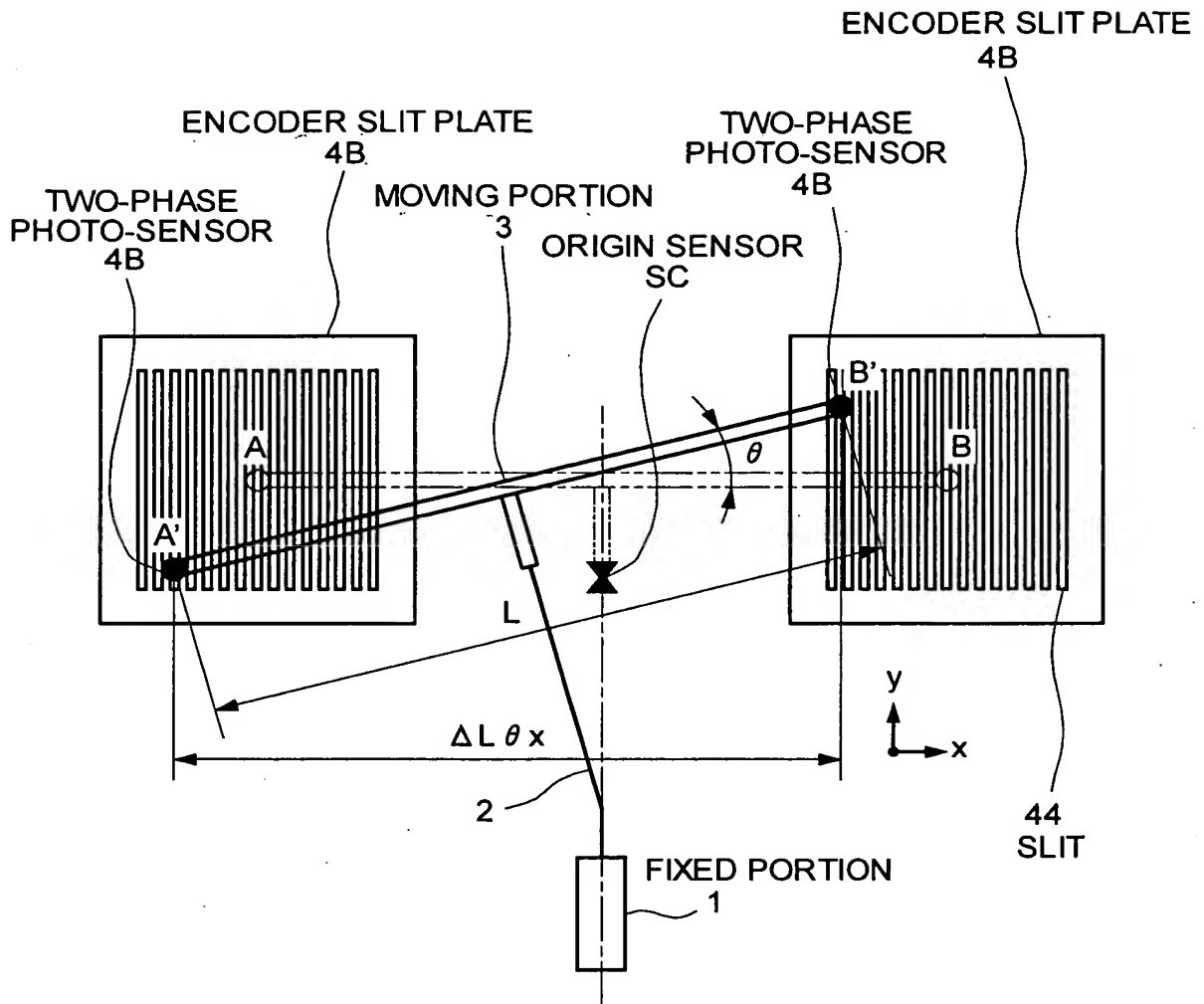


FIG. 15

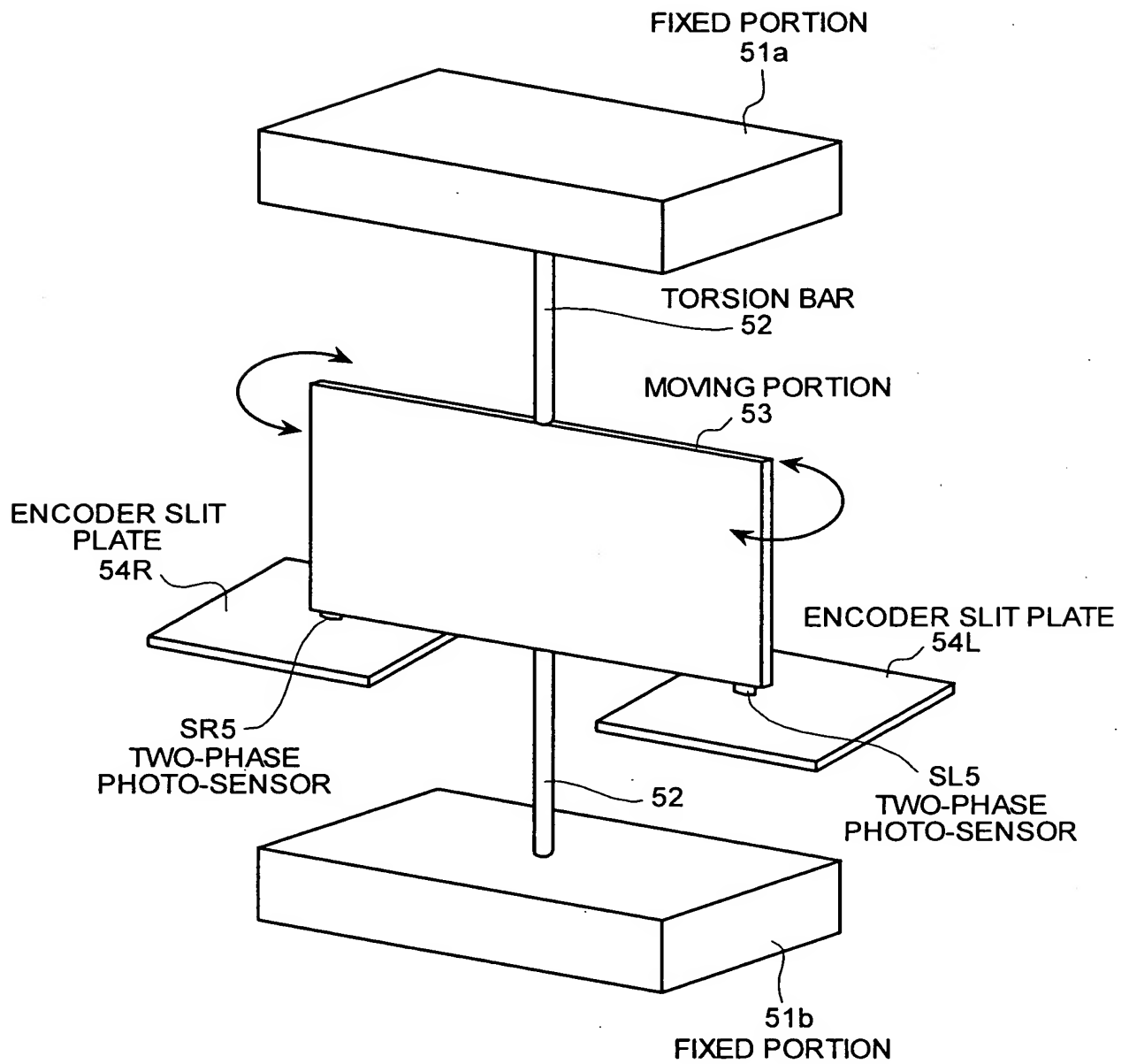


FIG. 16

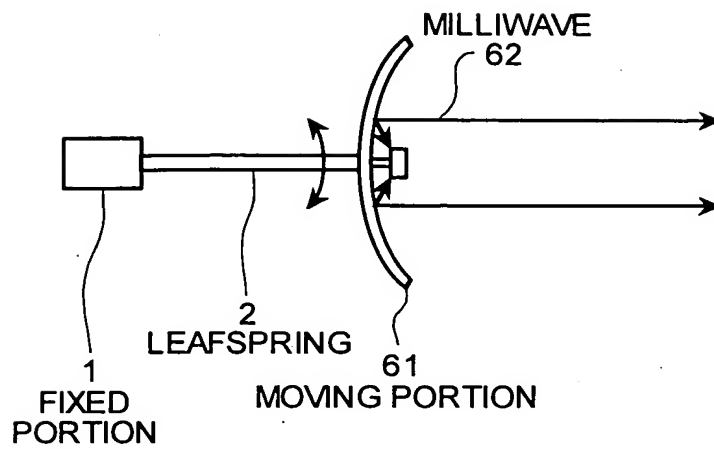


FIG. 17

